ABSTRACT OF THE DISCLOSURE

The present invention discloses a PFC-PWM controller having interleaved switching. A PFC stage generates a PFC signal for switching a PFC boost converter of a power converter. A PWM stage generates a PWM signal for switching a DC-to-DC converter of the power converter. The PFC-PWM controller includes a power manager for generating a discharge current and a burst-signal. Under light-load conditions, the discharge current decreases in proportion to a load of the power converter. The burst signal is utilized to disable the PFC signal in a suspended condition for power saving. A pulse width of the pulse-signal ensures a dead time to spread switching signals, such as the PFC and PWM signals, and reduces switching noise. When the discharge current decreases, the pulse width of the pulse-signal will increase and a frequency of the pulse-signal will decrease correspondingly. This further reduces power consumption under light-load and zero-load conditions.